HIGH POWER CASSETTE PLAYER
WITH FM/AM TUNER

OWNER'S MANUAL

SUPER TUNER III

Thank you for purchasing this PIONEER product. Before attempting operation, be sure to read this manual.

Nous vous remercions d'avoir acheté cet appareil PIONEER. Avant de l'utiliser, prendre soin de lire ce manuel.

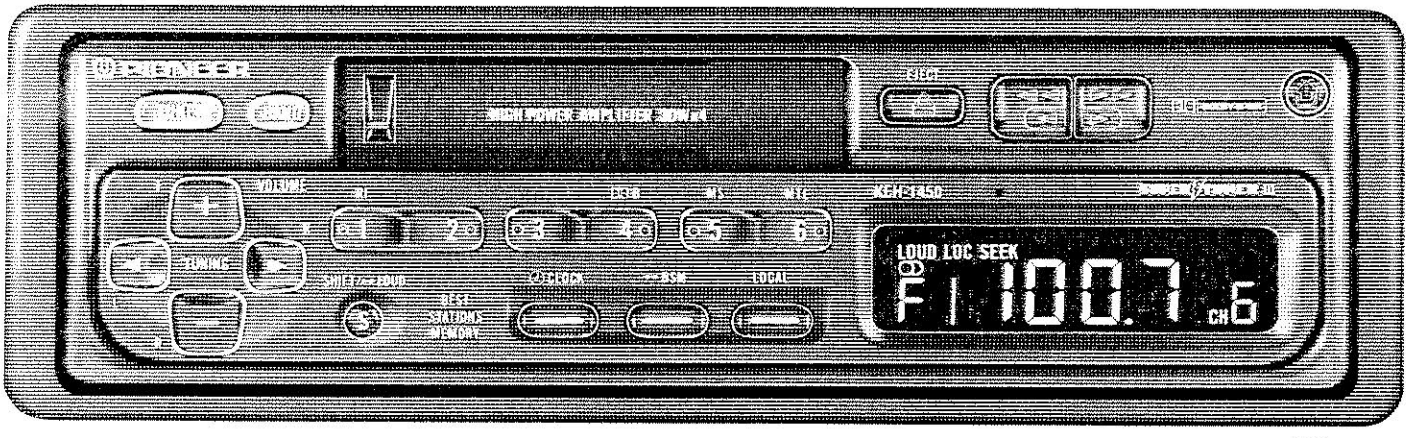
Muchas gracias por la adquisición de este producto PIONEER. Antes de tratar de operarlo, lea atentamente este manual.

شكرا لك على شرائك جهاز بايونير هذا. قبل محاولة تشغيله تأكد من قراءة هذا الدليل.

PIONEER®

The Art of Entertainment

KEH-1450
KEH-1150



KEH-1450

ENGLISH

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Precautions

Note

- If the car's battery is disconnected for any reason, the preset memory will be erased and must be reprogrammed after reconnecting the battery.

In case of trouble
If the unit does not operate properly, contact your dealer or the nearest authorized PIONEER Service Station.
Never remove the top case of the unit to attempt check or repairs.

Be Careful with Your Cassette

- Do not use tapes longer than C-90-type (90 min.) cassettes. Longer tapes can interfere with tape transport.
- Storing cassettes in areas directly exposed to sunlight or high temperatures can distort them and subsequently interfere with tape transport.
- Store unused tapes in a tape case where there is no danger of them becoming loose or being exposed to dust.

KEH-1150
- Be sure to eject the tape when the front panel is removed, or the vehicle's ignition is turned OFF. Leaving the tape in the unit can deform the pinch roller causing wow and flutter during tape playback.

Cleaning the head

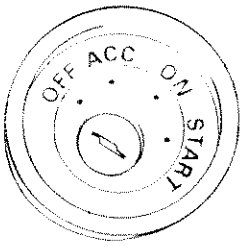
If the heads become dirty, the sound quality will deteriorate and there will be sound dropouts and other imperfections in performance. In this case, the head must be cleaned.

When using a cleaning tape, play it once on one side for normal cleaning. Excessive use of the cleaning tape will increase head wear. Be sure to read the cleaning tape instructions before use.

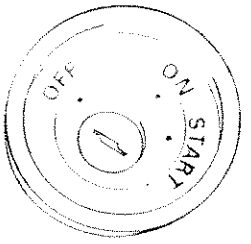
Connecting the Units

Note

- This unit is for vehicles with a 12-volt battery and negative grounding. Before installing it in a recreational vehicle, truck, or bus, check the battery voltage.
- To avoid shorts in the electrical system, be sure to disconnect the ⊖ battery cable before beginning installation.
- Check whether installation and wiring have been completed correctly. Replace the removed car components, then connect the end of the cable to the negative ⊖ terminal of the battery.
- Refer to the owner's manual for details on connecting the power amp, then make connections correctly.
- Secure the wiring with cable clamps or adhesive tape. To protect the wiring, wrap it in adhesive where it lies against metal parts.
- Route and secure all wiring so it cannot touch any moving parts, such as the gear shift, handbrake and seat rails. Do not route wiring in places that get hot, such as near the heater outlet. If the insulation of the wiring melts or gets torn, there is a danger of the wiring short-circuiting to the vehicle body.
- Don't pass the orange lead through a hole into the engine compartment to connect to the battery. This will damage the lead insulation and cause a very dangerous short.
- Do not shorten any leads. If you do, the protection circuit may fail to work when it should.
- Never feed power to other equipment by cutting the insulation of the power supply lead of the unit and tapping into the lead. The current capacity of the lead will be exceeded, causing overheating.
- When replacing fuses, be sure to use only fuses of the rating prescribed on the fuse holder.
- Since a unique BPTL circuit is employed, never wire so the speaker leads are directly grounded or the left and right ⊖ speaker leads are common.
- Speaker connected to this unit must be high-power types possessing minimum rating of 30 W (22 W for KEH-1150) and impedance of 4 to 8 ohms. Connecting speakers with output and/or impedance values other than those noted here can damage the speakers.
- When a power amp is being linked with this system, be sure not to connect the blue lead to the amp's power terminal. Likewise, when linking this system with the auto-antenna, do not connect the blue lead to the antenna's power terminal. Such connections can make overcurrent and cause malfunctions.
- When the unit is mounted in a vehicle whose ignition switch does not have the ACC (accessory) position as shown below, be sure to connect the red lead of the unit to the terminal controlled by the ignition switch ON/OFF position. If you do not, the vehicle battery may go flat when you leave your vehicle for several hours.

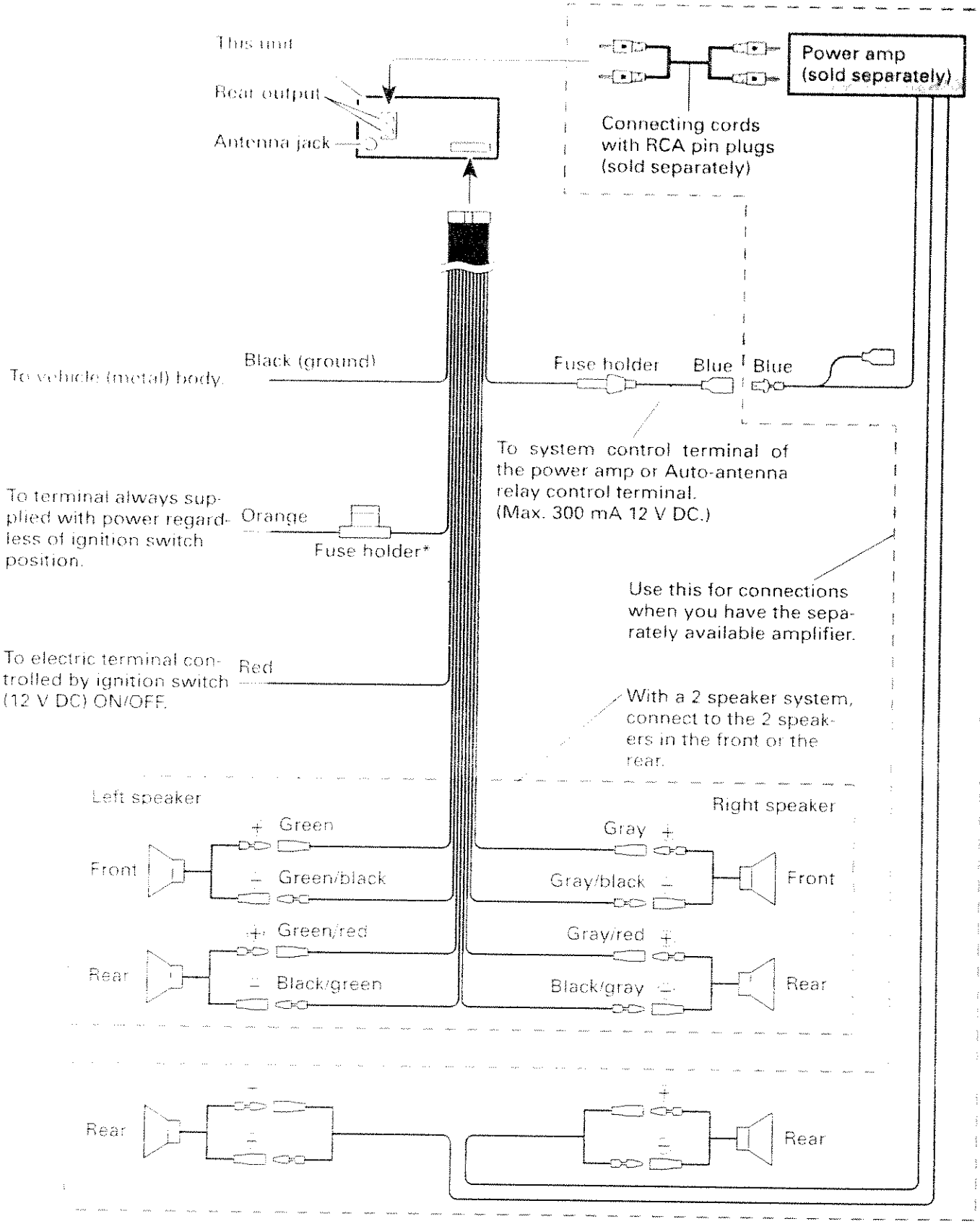


ACC position



No ACC Position

Connection Diagram

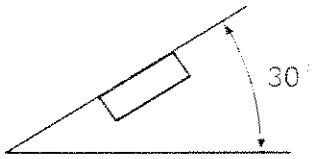


* The orange lead fuse holder for the KEH-1150 has a different shape.

Installation

Note

- Before installation, connect the wiring temporarily and make sure it is all connected properly and that the unit and the system work properly.
- To ensure proper installation, use only parts included with the unit. The use of unauthorized parts can cause malfunctions.
- Consult with your nearest dealer if installation requires the drilling of holes or other modifications of the vehicle.
- Install the unit where it does not get in the driver's way and cannot injure the passenger if there is a sudden stop, like an emergency stop.
- If installation angle exceeds 30° from horizontal, the unit might not give its optimum performance.

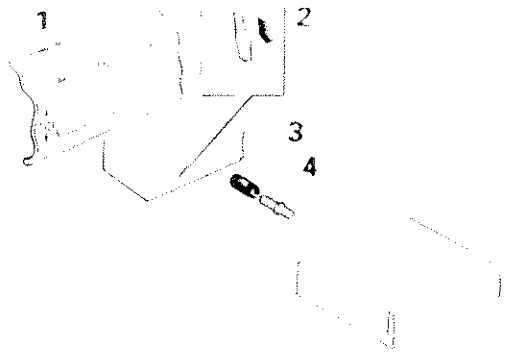


DIN Front/Rear-mount

This unit can be properly installed either from "Front" (conventional DIN Front-mount) or "Rear" (DIN Rear-mount installation, utilizing threaded screw holes at the sides of the unit chassis). For details, refer to the following illustrated installation methods.

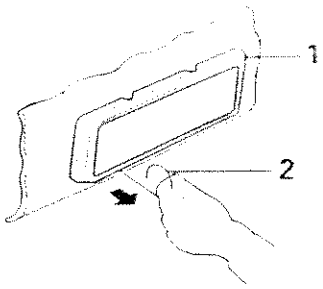
DIN Front-mount

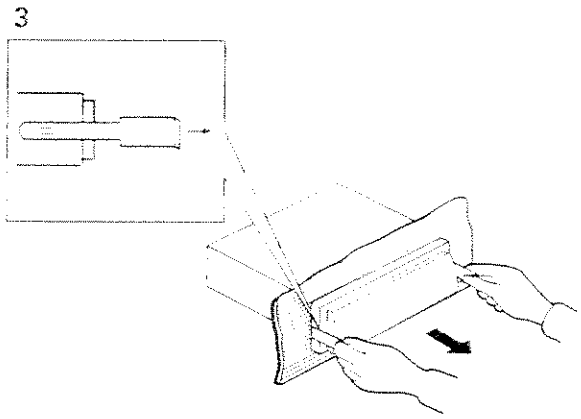
Installation with the rubber bush



1. Dashboard
2. Holder
   After inserting the holder into the dashboard, select the appropriate tabs according to the thickness of the dashboard material and bend them inwards to secure the holder in place.
3. Rubber bush
4. Screw

Removing the unit



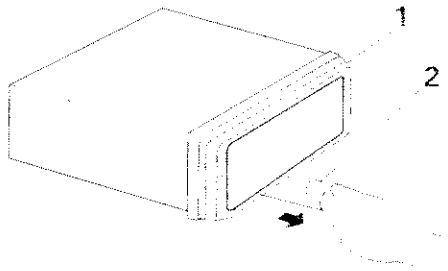


1. Frame
2. Insert the release pin into the hole in the bottom of the frame and pull out to remove the frame.
   (When reattaching the frame, point the side with a groove downwards and attach it.)
3. Lever
   Insert the levers supplied with the unit into the grooves at both sides of the unit as shown in figure until they click. Pulling the levers makes it possible to remove the unit from the dashboard.

DIN Rear-mount

Installation using the screw holes on the sides of the unit.

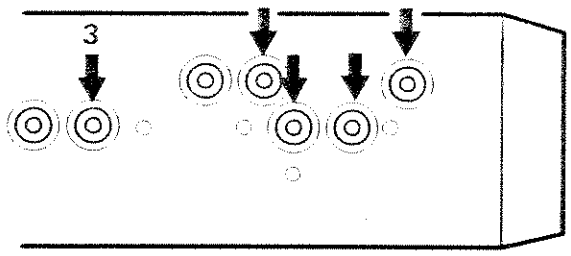
1.

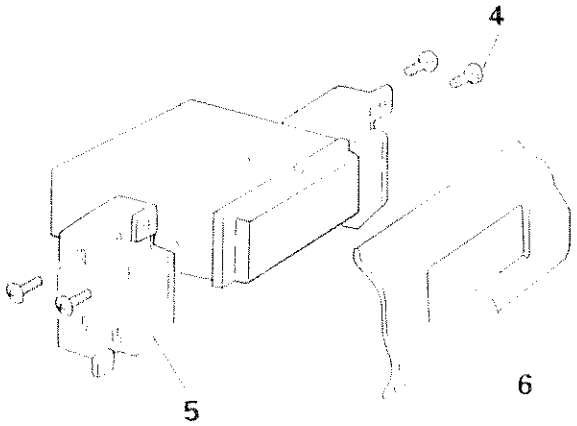


Remove the frame.

1. Frame
2. Insert the release pin into the hole in the bottom of the frame and pull out to remove the frame.
   (When reattaching the frame, point the side with a groove downwards and attach it.)

2.





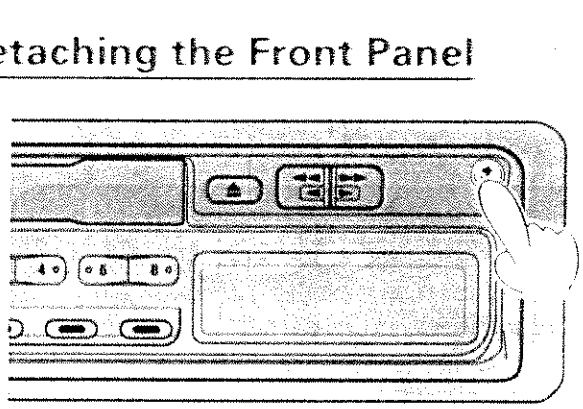
Fastening the unit to the factory radio mounting bracket.

3. Select a position where the screw holes of the bracket and the screw holes of the main unit become aligned (are fitted), and tighten the screws at 2 places on each side. Use either truss screws (5 × 8 mm) or flush surface screws (5 × 9 mm), depending on the shape of the screw holes in the bracket
4. Screw
5. Factory radio mounting bracket
6. Dashbord or Console

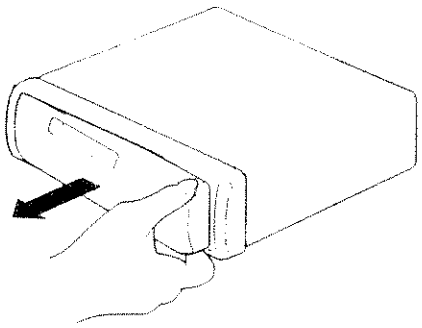
Using the Removable Front Panel

The front panel of this unit can be removed as a theft deterrent.

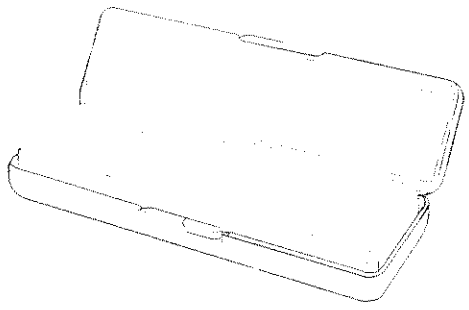
Detaching the Front Panel

1. 

Press the [⏏] button.

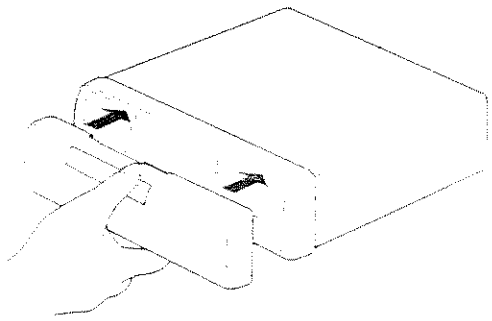
2. 

Take the right hand side of the panel and pull out.

3. 

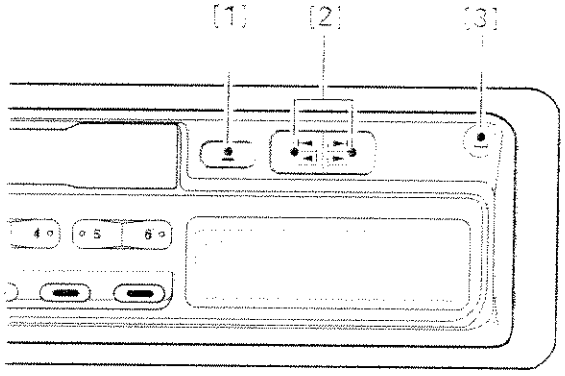
Place in the supplied case.

Replacing the Front Panel



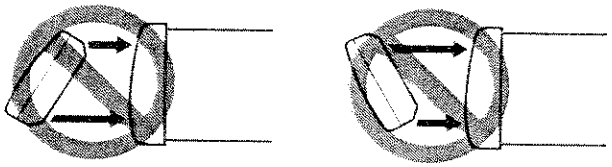
Push the front panel into the main body.

- Do not install the front panel while holding down buttons [1], [2] or [3]. Doing so may destroy the buttons and the main unit.

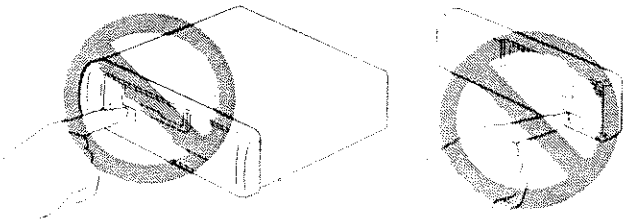


Note

- Install the front panel holding it parallel to the main unit. Installing the panel tilted, as shown in the illustrations below, may cause the hook on the front panel to destroy the main unit's electrodes.



- Do not touch the contacts on the front panel or on the unit body, since this may result in poor electrical contact. If dirt or other foreign substances get on the contacts, wipe them with a clean, dry cloth.



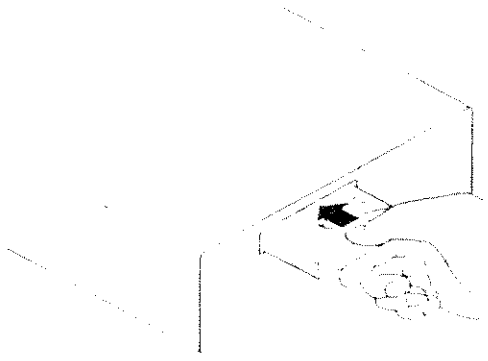
Precautions When Handling the Front Panel

- Do not leave the front panel in any area exposed to high temperatures or direct sunlight.
- Do not drop the front panel or otherwise subject it to strong impact.
- Do not allow volatile agents like benzine, thinners, or insecticides to come into contact with the surface of the front panel.

Power ON/OFF

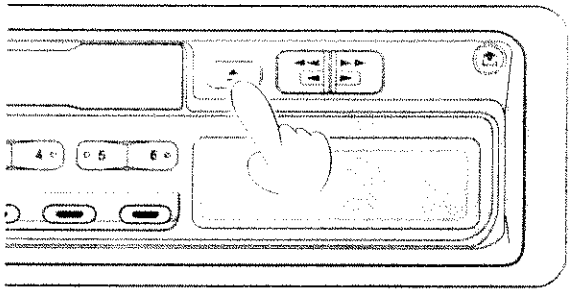
Tape

To play



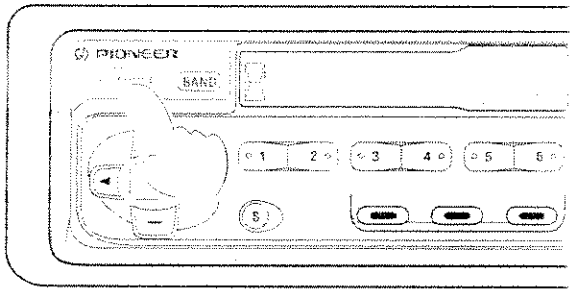
Insert a cassette tape through the cassette door, the power comes on and the tape starts to play automatically.

Eject



Press the [⏏] button.

Radio

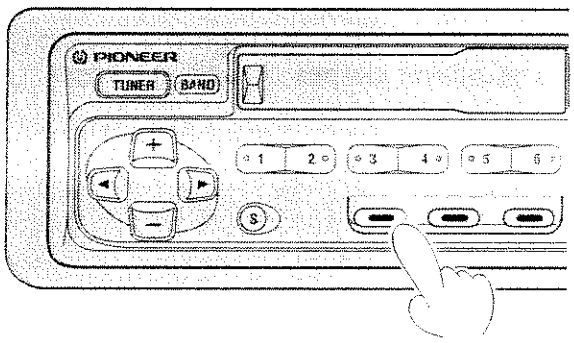


Press the [TUNER] button to switch the tuner ON/OFF.

- You cannot switch to "TUNER" when a tape is loaded.

Using the Clock

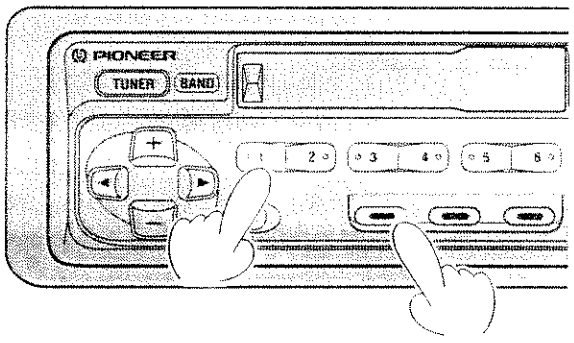
Displaying the Time



Press the [CLOCK] button to turn the clock ON/OFF.

- The clock cannot be displayed when the POWER is OFF.
- When you perform another operation, the clock temporarily disapears from the display. The clock display is restored approximately 25 seconds after the operation.

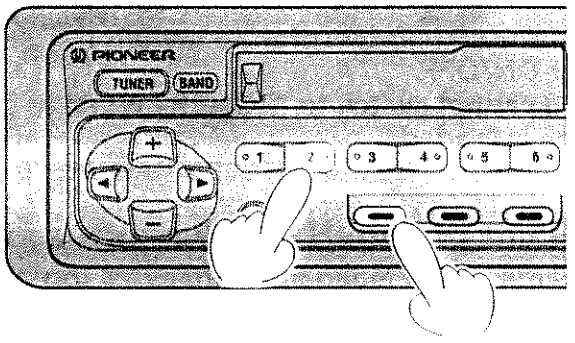
To adjust the hour



Hold down the [CLOCK] button and press the [1] button while the clock is displayed.

- You can adjust the hour and minute successively by pressing the [1] and [2] buttons while holding down the [CLOCK] button.

To adjust the minute

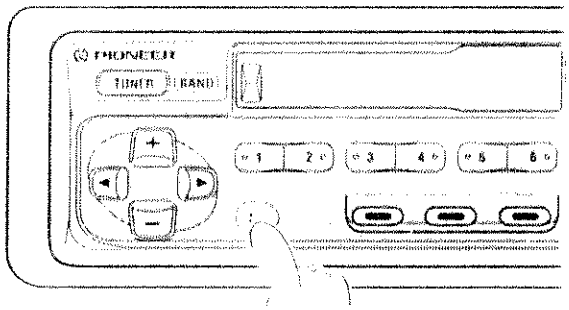


Hold down the [CLOCK] button and press the [2] button while the clock is displayed.

- You can adjust the hour and minute successively by pressing the [1] and [2] buttons while holding down the [CLOCK] button.
- The seconds start at "0" When you release the [CLOCK] button.

Adjusting Volume and Tone

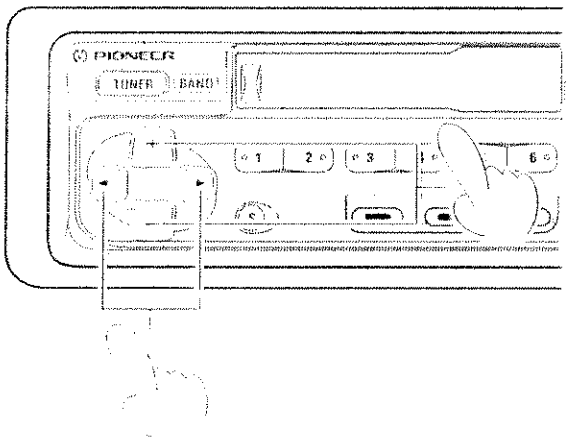
Mode Selection



Each press of the [S] button changes the mode as follows:
Fader adjustment (F:) → Tone adjustment (T:) → Volume adjustment (V:)

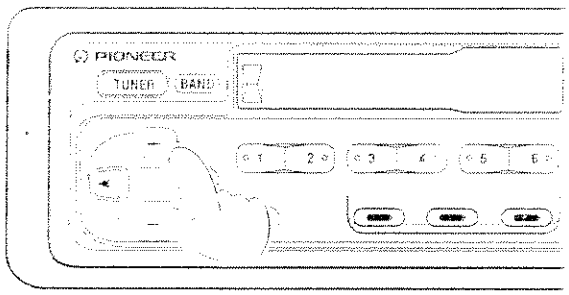
- Fader, Balance, Treble and Bass settings stop temporarily at the center position.
- If no operations are performed within 8 seconds, adjustment modes are cancelled. Make adjustments within 8 seconds.

Fader/Balance



Press the [◄] or [►] button when in the Fader mode, and the Balance mode "B:" is indicated in the display. Press the [+] or [–] button when in the Balance mode, and the display changes to "F:", indicating that you have switched to the Fader mode.

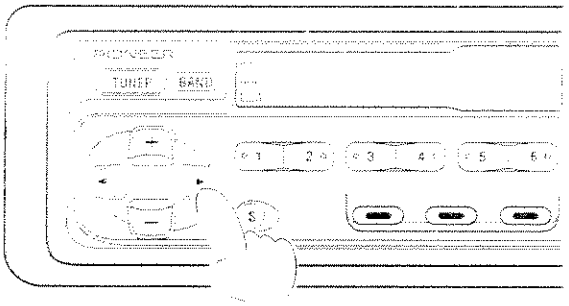
Fader



[+]: Shifts the sound toward the front speakers.
[–]: Shifts the sound toward the rear speakers.
(Display shows "F:F9" ~ "F:R9".)

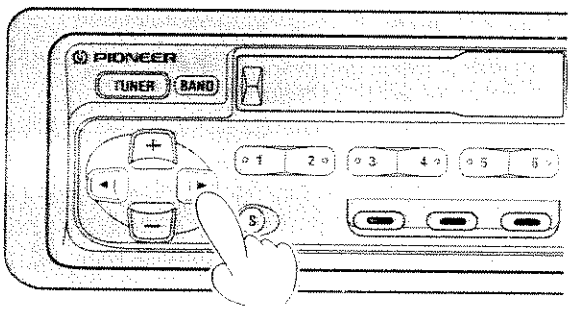
- Please set to "F: 0" when using a 2 speaker system.

Balance



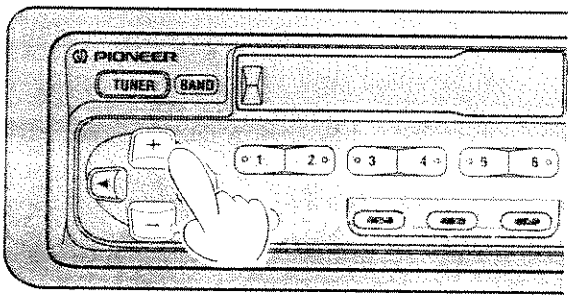
[►]: Shifts the sound toward the right speakers.
[◄]: Shifts the sound toward the left speakers.
(Display shows "B:L9" ~ "B:R9".)

Bass/Treble



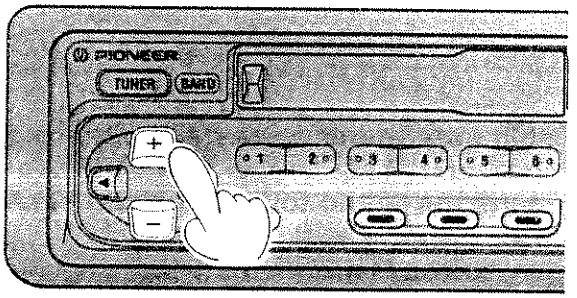
Press the [◄] button when in the Treble mode, and the Bass mode "B:" is indicated in the display. Press the [►] button when in the Bass mode, and the display changes to "T:" indicating that you have switched to the Treble mode.

Adjusting Bass/Treble



[+]: **Boosts**
[–]: **Attenuates**
(When in the Treble mode, the display shows "T:–6" ~ "T: 6". When in the Bass mode, it shows "B:–8" ~ "B: 8".)

Volume

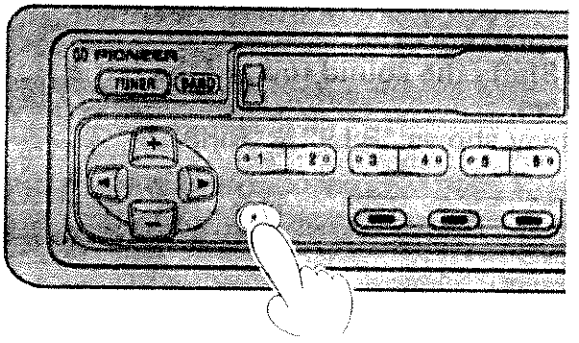


Pressing the [+] button increases the volume, while the [–] button decreases it.
(Display shows "V: 0" ~ "V: 31".)

- When driving your vehicle, be sure to keep the volume of the unit set low enough to allow you to hear sounds coming from outside.

Loudness

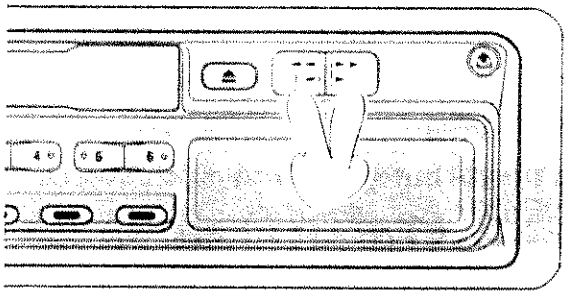
This function enhances both the high and low ranges of sound to give even more power to output at low volume.



Press the [S] button for 2 seconds to turn Loudness ON/OFF.
"LOUD" appears in the display when the Loudness function is turned ON.
"LOUD" goes out when the Loudness function is turned OFF.

Using the Tape Deck

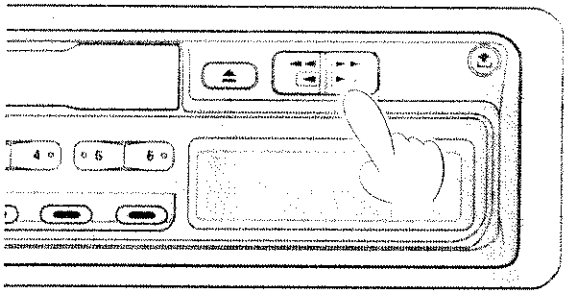
To Change Sides



Press the [◄◄] and [►►] buttons at the same time.

Fast Forward/Rewind

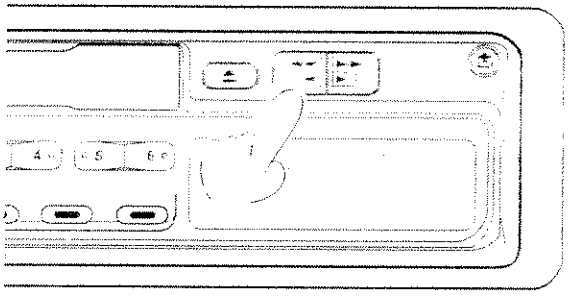
Fast forward



Press the button for the same direction as the tape play indicator.

– – –►

Rewind



Press the button for the opposite direction as the tape play indicator.

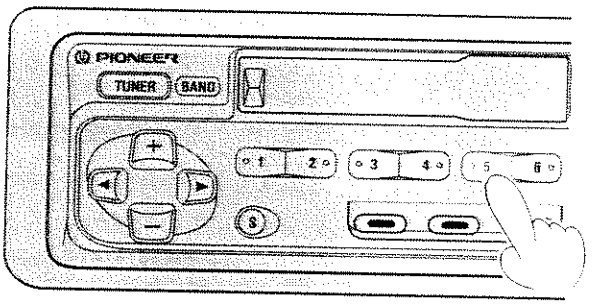
– – –►

- To release fast forward/rewind, lightly press the [◄◄] or [►►] button located on the opposite side of the one you pressed to fast forward or rewind.
- "◄ – – – ►" flashes when the tape is fast forwarding or rewinding.

Music Search (KEH-1450)

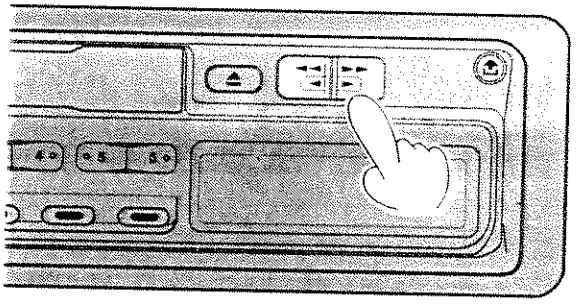
This function lets you set the rewind/fast forward operations to stop automatically when they reach the beginning of a track.

1.



Press the [5] button to turn music search ON/OFF.
"MS" appears in the display when music search is ON.
"MS" goes out when music search is OFF.

2.



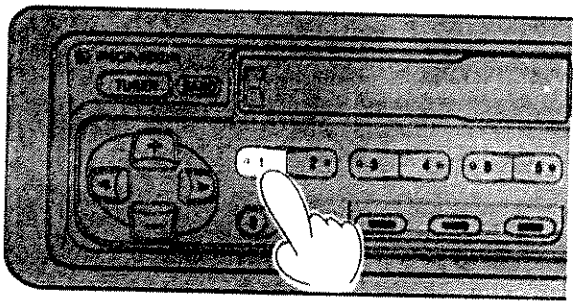
Press the [◄◄] or [►►] button.
Pressing the button for the same direction as the tape play indicator fast forwards to the beginning of the next song.
Pressing the button for the opposite direction as the tape play indicator rewinds to the beginning of the current song.
- "◄ ▬ ▬ ▬► " flashes during the music search.

Note

- Music search will not be able to detect the "blank" portions between selections if they are less than 4 seconds long.
- Music search reads portions recorded at very low volume for more than 4 seconds as blanks between sections.
- Music search reads pauses longer than 4 seconds in recorded conversations as blanks between sections.

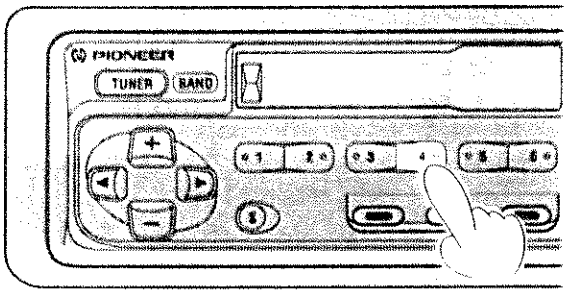
Radio Intercept

This function lets you listen to the radio while playing, fast forwarding, or rewinding a tape.



Press the [1] button to turn radio intercept ON/OFF.
"RI" appears in the display when the radio intercept function is turned ON.
"RI" goes out when the radio intercept function is turned OFF.

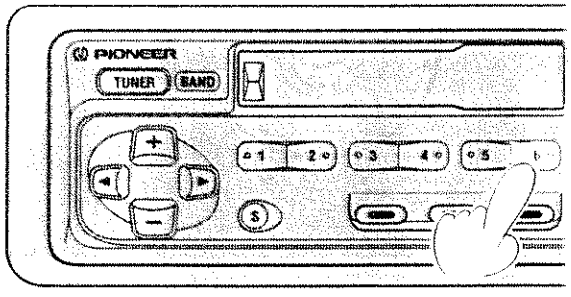
Dolby B NR (KEH-1450)



Press the [4] button to turn Dolby NR ON/OFF.
"DD" appears in the display when Dolby NR is ON (for tapes recorded with Dolby NR).
"DD" goes out when Dolby NR is turned OFF (for tapes recorded without Dolby NR).

- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
  "DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Tape Selector (KEH-1450)



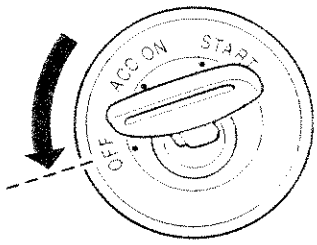
Press the [6] button to set the tape selector.
"MTL" appears in the display when the tape selector is set for Metal/Chrome position tapes.
"MTL" goes out when the tape selector is set for normal tapes.

Changing the Tuning Steps

Changing the AM tuning steps

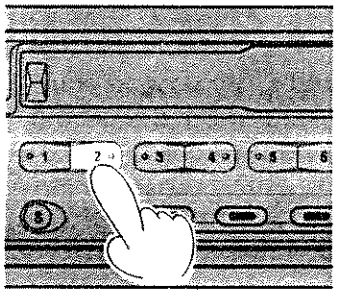
The tuning steps of the AM band for this unit can be switched between 9 kHz and 10 kHz per step. The tuning step should be switched from 9 kHz (which is preset at the factory) to 10 kHz when this unit is used in North America, Central America or South America.

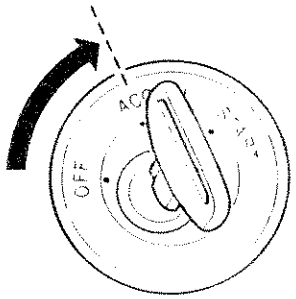
1.



Set the ignition switch to the OFF position.

2.





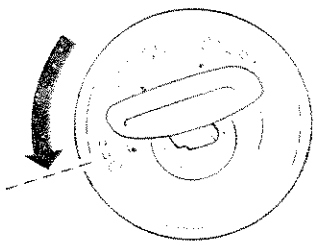
While pressing the [2] button, set the ignition switch to the ACC or ON position.
Remember that changing the tuning steps also deletes frequencies stored in the tuning memories.

	Specification	Initial setting	New setting
AM	Tuning steps	9 kHz steps	10 kHz steps
	Frequency range	531 — 1,602 kHz	530 — 1,710 kHz

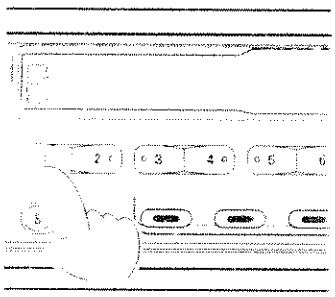
Changing the FM tuning steps

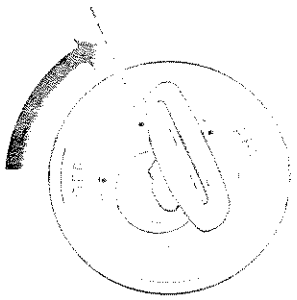
The seek tuning steps of the FM band for this unit can be switched between 100 kHz and 50 kHz per step (initial setting: 100 kHz). Change it as required.

1. Set the ignition switch to the OFF position.



2. **While pressing the [1] button, set the ignition switch to the ACC or ON position.**

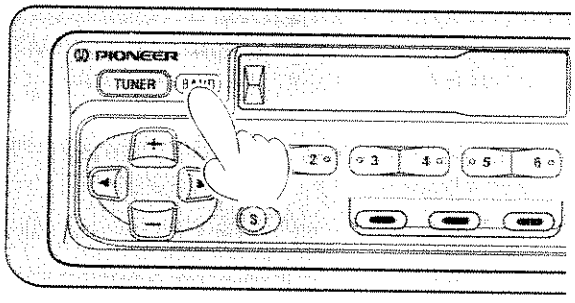




- If seek tuning is performed in 50 kHz steps, a frequency before a broadcasting station frequency may be received. Tune in the station by performing manual tuning or seek tuning again.

Using the Radio

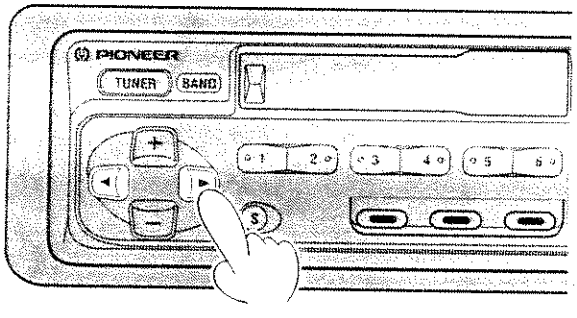
Selecting a Band



Press the [BAND] button to select a band.

F I — F II — F III — A
(FM1) (FM2) (FM3) (AM)

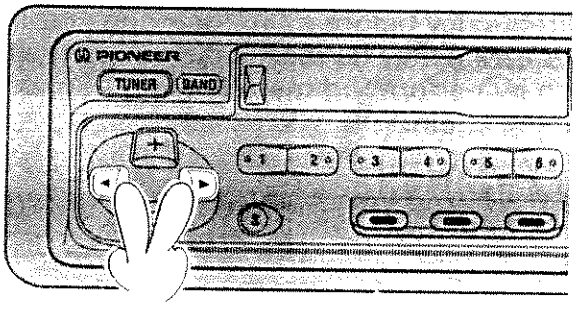
Seek Tuning



[◄]: Automatically selects a lower frequency station.
[►]: Automatically selects a higher frequency station.
("SEEK" lights in the display.)

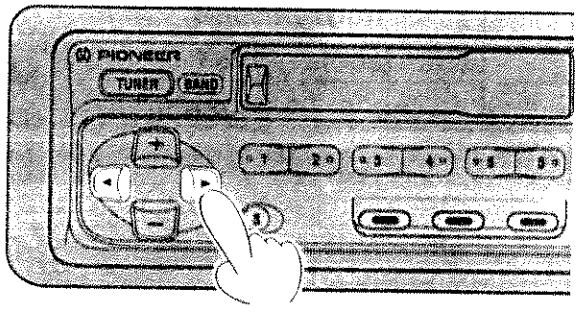
Manual Tuning

1.



Press both [◄] and [►] buttons at same time.
("SEEK" goes out from the display.)
- Each time you repeat this operation, "SEEK" either lights or goes out.

2.



[◄]: Use to select lower frequencies.
[►]: Use to select higher frequencies.
Continue pressing the button to move up or down continuously through frequencies.
- Tuning moves up or down in 50 kHz steps for FM, 9 kHz steps for AM.
- AM frequencies are tuned in 10 kHz steps after the tuning steps are changed.

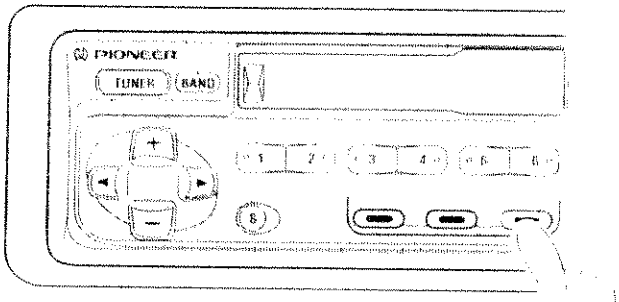
Adjusting Seek Sensitivity

The seek tuning function of this tuner lets you select between a local setting for reception of strong stations only, and a DX setting for reception of weaker stations.

The local setting also has 4 seek tuning sensitivity levels for FM and 2 levels for AM to match local conditions.

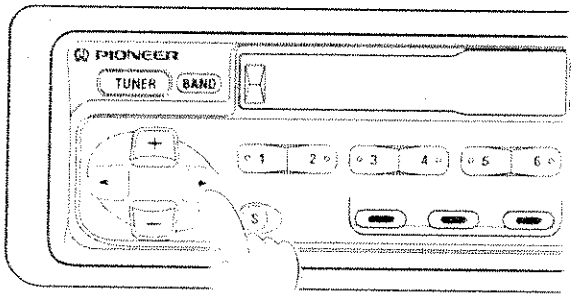
Changing the local seek sensitivity

1.



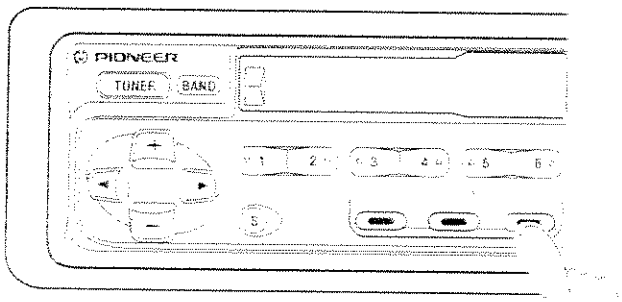
Select the desired band, and press the [LOC] button for more than 2 seconds.
(The local seek level is indicated in the display for about 5 seconds.)

2.



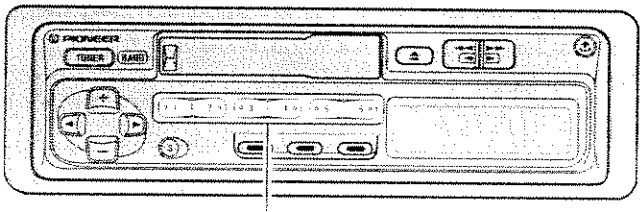
[►]: Raises the sensitivity level.
[◄]: Lowers the sensitivity level.
FM : L-1 = L-2 = L-3 = L-4
AM : L-1 = L-2
The L-4 setting allows reception of only the strongest stations, while lower settings let you receive progressively weaker stations. Adjust the sensitivity while the local seek indicaton is displayed (5 seconds).

Switching between local and DX



Press the [LOC] button.
Each time you press the button, you switch between local and DX.
Local position : "LOC" is displayed.
DX position : "LOC" is not displayed.

Preset Memory



Preset buttons

Tune into the station you want to memorize, and press the desired preset button for 2 seconds or more.

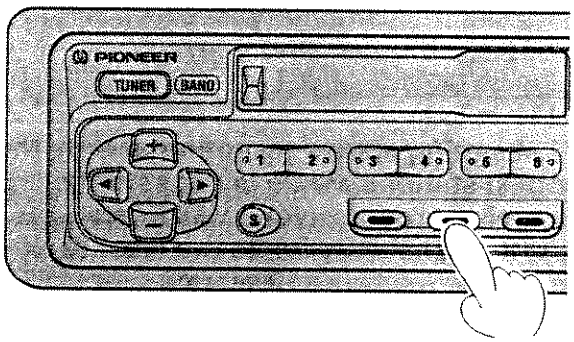
FM : 18 stations can be memorized
(6 stations each for FM1/FM2 FM3.)
AM : 6 stations can be memorized.

To recall a memorized station, briefly press the preset button for the station you desire. (The selected preset number lights in the display.)

BSM (Best Stations Memory)

This function automatically locates stronger stations and automatically assigns their frequencies to preset buttons [1 – 6], in order of strength.

It comes in handy when trying to find local stations while driving.



Select the desired band, and press the [BSM] button for 2 seconds or more.
(" – – – " flashes in the display until BSM operation is completed.)

- If there are fewer than 6 strong stations in the area, some of the preset buttons will not be assigned frequencies, so they will retain any frequencies assigned to them previously.

Specifications

ENGLISH

General

Power source ..... 14.4 V DC (10.8 — 15.1 V allowable)
Grounding system ..... Negative type
Max. current consumption
KEH-1450 ..... 7.5 A
KEH-1150 ..... 6.0 A
Dimensions (DIN) (mounting size) ..... 178 (W) × 50 (H) × 150 (D) mm
(nose) ..... 188 (W) × 58 (H) × 19 (D) mm
(D) (mounting size) ..... 178 (W) × 50 (H) × 155 (D) mm
(nose) ..... 170 (W) × 48 (H) × 14 (D) mm
Weight ..... 1.1 kg

Amplifier

Continuous power output is 14 W (10 W for KEH-1150) per channel min. into 4 ohms, both channels driven 50 to 15,000 Hz with no more than 5 % THD.
Maximum power output
KEH-1450 ..... 30 W × 4
KEH-1150 ..... 22 W × 4
Continuous power output
KEH-1450 ..... 14 W × 4 (1 % dust. at 1 kHz)
KEH-1150 ..... 10 W × 4 (1 % dust. at 1 kHz)
Load impedance ..... 4 Ω (4 — 8 Ω allowable)
Preout output level/output impedance ..... 500 mV/1 kΩ
Tone controls (bass) ..... +8 dB — −16 dB (100 Hz)
(treble) ..... ±12 dB (10 kHz)
Loudness contour ..... +10 dB (100 Hz), +7 dB (10 kHz) (Volume: −30 dB)

Tape player

Tape ..... Compact cassette tape (C-30 — C-90)
Tape speed ..... 4.8 cm/sec.
Fast forward/rewind time ..... Approx. 90 sec. for C-60
Wow & flutter ..... 0.13 % (WRMS)
Frequency response
KEH-1450 ..... 40 — 17,000 Hz (±3 dB)
KEH-1150 ..... 40 — 14,000 Hz (±3 dB)
Stereo separation ..... 45 dB
Signal-to-noise ratio
KEH-1450 ..... Metal: Dolby B NR IN: 63 dB (IEC-A network)
Dolby NR OUT: 55 dB (IEC-A network)
KEH-1150 ..... 52 dB (IEC-A network)

FM tuner

Frequency range ..... 87.5 — 108 MHz
Usable sensitivity ..... 11 dBf (1.0 μV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity ..... 16 dBf (1.7 μV/75 Ω, mono)
Signal-to-noise ratio ..... 70 dB (IEC-A network)
Distortion ..... 0.3 % (at 65 dBf, 1 kHz, stereo)
Frequency response ..... 30 — 15,000 Hz (±3 dB)
Stereo separation ..... 40 dB (at 65 dBf, 1 kHz)

AM tuner

Frequency range ..... 531 — 1,602 kHz (9 kHz)
530 — 1,710 kHz (10 kHz)
Usable sensitivity ..... 18 μV (25 dB) (S/N: 20 dB)
Selectivity ..... 50 dB (±9 kHz)
50 dB (±10 kHz)

Note:
Specifications and design are subject to possible modification without notice due to improvements.